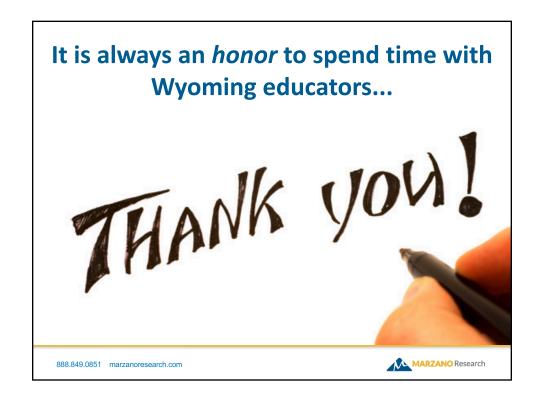


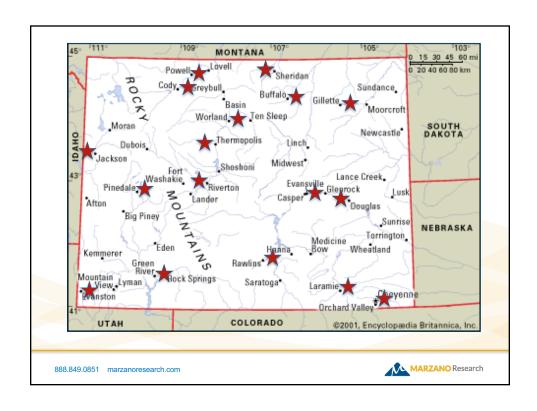
Assessment Literacy and Formative Assessment Resource Development Training

Presented by Marzano Research for Wyoming Department of Education

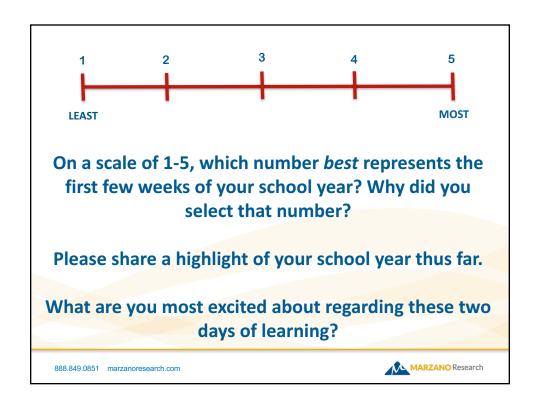


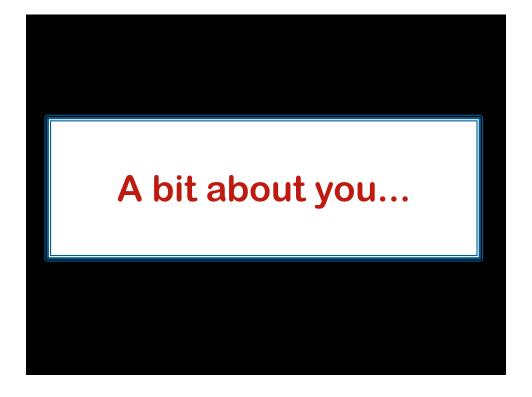
Ms. Jan K. Hoegh, Author and Associate jan.hoegh@marzanoresearch.com











Raise your hand if this applies to you...

- ✓ I have to have caffeine to get my day underway.
- ✓ I have a pet that I like more than some of my relatives.
- ✓ I was the "naughty" kid at school.
- ✓ I play a musical instrument for enjoyment.
- ✓ I did some travel this past summer.
- ✓ I completed at least one home improvement project during summer break.
- ✓ I completed some educational coursework this summer.
- ✓ I am in a new role as an educator in 2017-18.

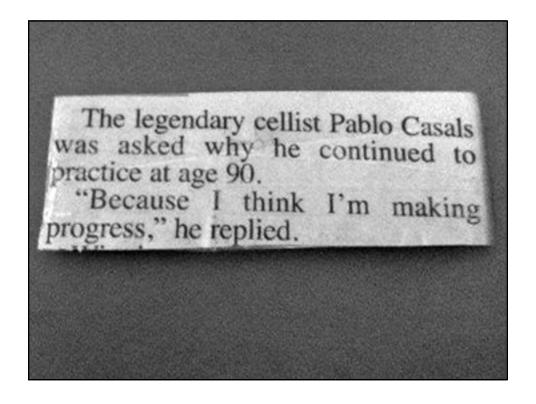
Raise your hand if you are a...

- OClassroom teacher/student teacher
- Instructional coach
- OPrincipal/asst. principal
- OCurriculum director/coordinator
- Central office
- Other









Our purpose...

To enhance your individual and collective knowledge about classroom assessment practices that lead to higher levels of student achievement.





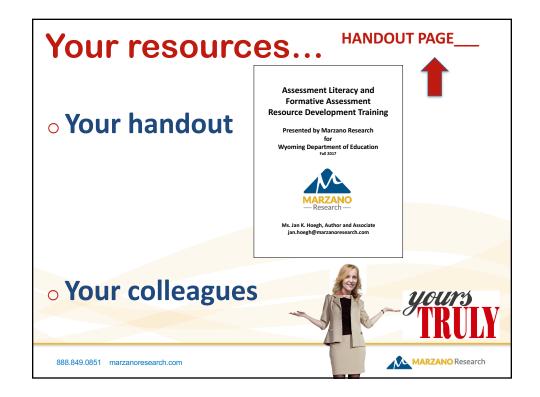
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HANDOUT PAGE 2







A few norms of operation...

- This is YOUR valuable time...
 - Ponder, ask questions, apply.
- Misery is optional. ©



- Please engage in *respectful* operating procedures
 - (respectful use of technology, minimal side-bar conversations, etc.).
- Be flexible.
- Attend, participate, and HAVE FUN!







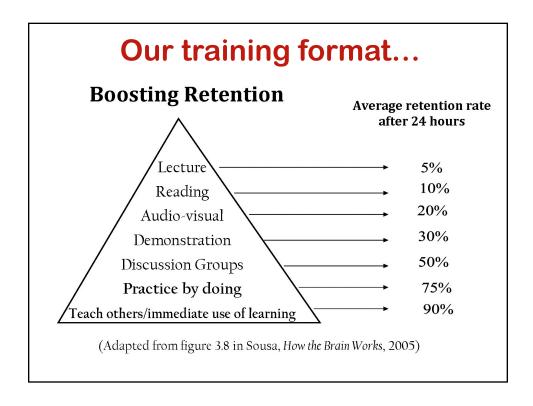
Attention and Refocus Signal

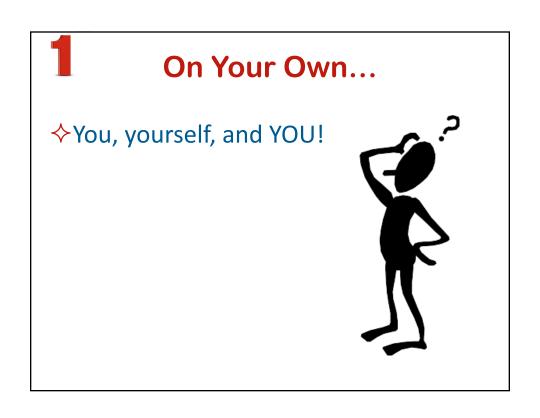
- ♦ I will raise a hand and indicate remaining time.
- → Please respond by raising your hand.
- ♦ I will count back the last few remaining seconds.
- ♦ I will proceed when everyone is quiet.
- ♦ Thanks!



- Session one 8:00
- Morning break 9:45
- Session two 10:00
- Working Lunch 11:45
- Session three 12:30
- Afternoon break 2:15
- Session four 2:30
- Closure by 4:00
- *Please add the letters –ish to the end of each time! ©









1

On Your Own...

♦ You, yourself, and YOU!

Please take a bit to complete the anticipation guide found in your handout on page 3.



HANDOUT PAGE 3

Please complete the anticipation guide...

Before		Statements	After	
Α	D	1. Assessment is one means of offering feedback to learners.	Α	D
Α	D	2. While there are multiple types of classroom assessment, obtrusive assessment should be used more frequently than other types.	Α	D
Α	D	3. The terms standard, learning goal, and learning target mean the same thing.	Α	D
Α	D	4. A teacher need only be concerned about teaching content considered priority.	Α	D
Α	D	5. A proficiency scale articulates a learning progression.	Α	D
Α	D	6. All proficiency scales should be written in student-friendly language.	Α	D
Α	D	7. A proficiency scale is to be used by the classroom teacher only.	Α	D
Α	D	8. All items on an assessment should be written to align with Score 3.0 on the proficiency scale.	Α	D
Α	D	9. Effective feedback is corrective in nature.	Α	D
Α	D	10. A common assessment typically results in data discussions.	Α	D

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Elbow Partner...

♦Someone sitting right next to you

There are 2 kinds of people in this world:

- morning people
 people who want to shoot morning people

Elbow Partner...

♦Someone sitting right next to you



Please share your "best hope" for these two days of training.

Also, please compare results on the anticipation guide you just completed.



When I say go:

Please form groups of 2 or 3 with others sitting near you, but not at your table.

Take 60 seconds to introduce yourselves and then discuss the following question:

What works well for you when assessing learners?
What are your assessment challenges?





Discussion facilitator is the person who has the most years as an educator...



That person may select the discussion facilitator!

Table Partner Roles

<u>Facilitators</u>: Keeps group on task – ensures all get to speak.

<u>Timers</u>: Attends to the amount of time given, left, and when to return. Gets teammates back from breaks & lunch on time.

Speakers: Speaks for the group to the larger group.

Moral Support: Helps the rest of the team.



Let's get going:

Please consider each statement on the screen and determine your level of agreement.

Share some of your own experience and expertise in relation to each statement.

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Research by Jorissen, 2006

"Most teachers say they develop their assessment knowledge and practices on the job."



Research by Rick Stiggins, 2008

"We have trusted those we believe to be more knowledgeable in test item development to develop our assessments."

(textbook and test-making companies)

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Popham and Stiggins, 2008

"We have misunderstood the significance and hence slighted the purpose of daily classroom assessment."



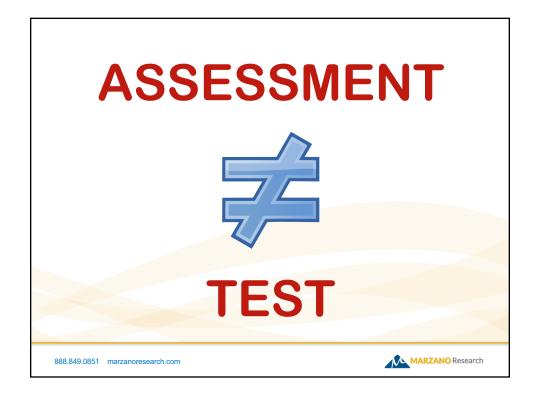
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HANDOUT PAGE 2





Classroom assessment is...

Anything a teacher does to gather information about a student's knowledge or skill regarding a specific topic.

Marzano, R. (2010) Formative Assessment and Standards-Based Grading, Bloomington, IN, Marzano Research Laboratory

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High-quality classroom assessment includes:

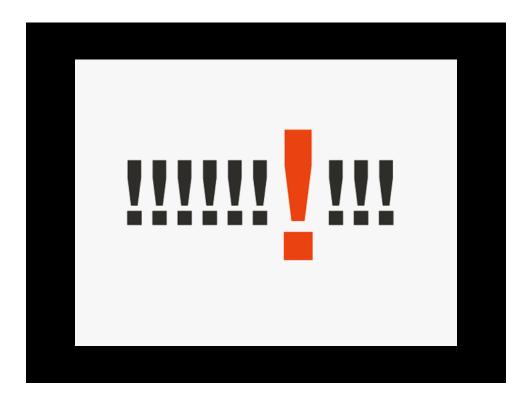
- On-going informal assessment of individual students and the group as a whole (determined by the individual teacher)
- Formal assessment of individual students and the group as a whole (determined by the individual teacher)
- Common assessments given across a grade level or course (determined by a group of teachers)
- Large scale assessment (MAP, WYTOPP, ACT, etc.)

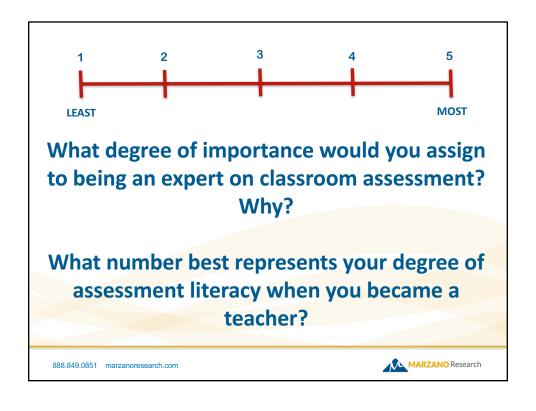


Why should we become experts?

In order to make reliable decisions about student achievement, assessment practices must be high-quality.

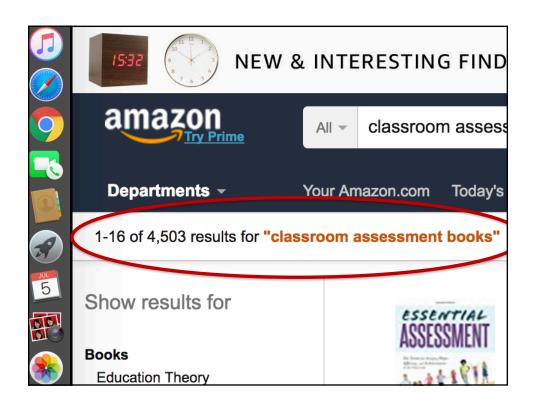


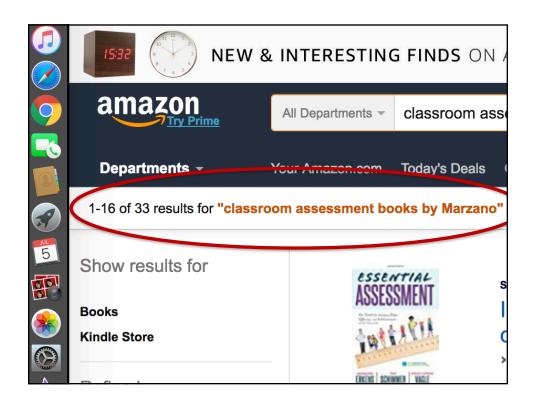




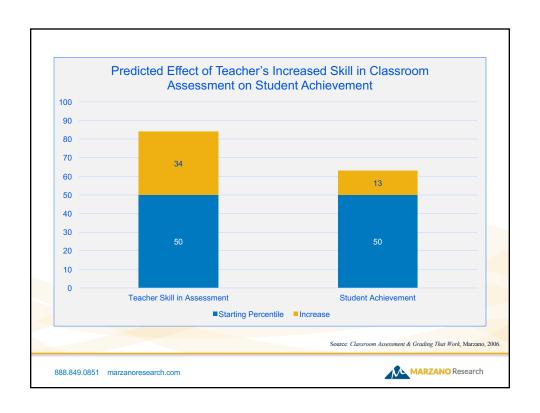


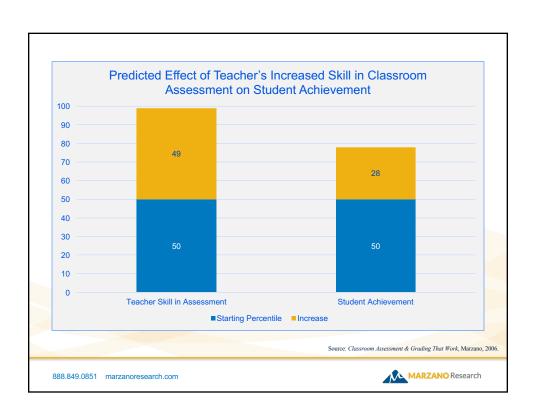
WHAT TEACHER PREPARATION PROGRAMS TEACH ABOUT K-12 ASSESSMENT						
How adequately does coursework address "Assessment Literacy?"						
Adequate	20%					
Partially Adequate	21%					
Limited	43%					
Very Limited	13%					
Virtually None	3%					
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Why should we become experts?

Assessment results are one type of feedback!

Hattie and Timperley (2007) synthesized the most current and comprehensive research on feedback and summarized findings. They calculated an overall average effect size of 0.79, translating to a 29 percentile point gain.

Another way of saying this is that a student at the 50th percentile in a classroom where feedback was not provided would be predicted to rise to the 79th percentile if he or she was provided with feedback.

Why should we become experts?

In a research review based on 250 empirical studies of classroom assessment that had been drawn from more than 800 published investigations, Paul Black and Dylan Wiliam concluded:

"The research reported here shows conclusively that formative assessment does improve learning."







Day #1 Learning Outcomes...

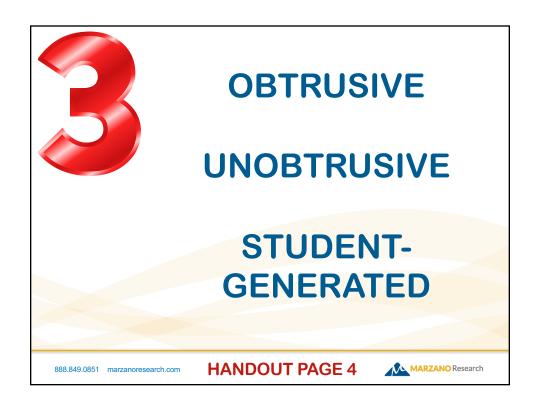
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HANDOUT PAGE 2



Type Description Notes | Obtrusive | Obtrusive | Obtrusive sasesments interrupt the normal flow of activity in the classroom. Instruction does not occur during obtrusive seasements. Instead, instruction stops while students "Sub-le seasements. Instead, instruction stops while students "Sub-le new obsciences" the line seasements of the classroom. In fact, students right not exercise the flow of activity in the classroom. In fact, students right not even be aware that they are being assessed during an unobtrusive assessment. These types of assessments are probably the most understituted from the class of the control of the contro



Three *Types* of Assessment

Obtrusive

 Formalized, interrupt the normal flow of activity in the classroom

-pencil/paper tests, projects, quiz

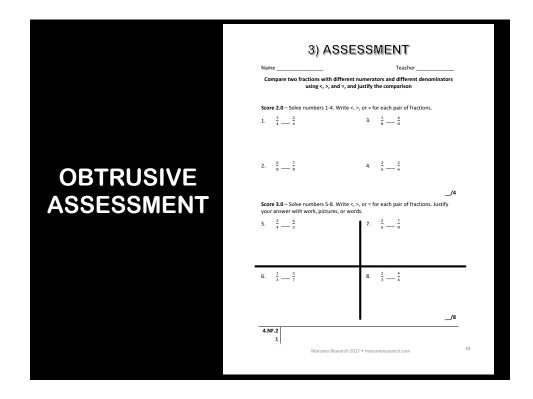


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The student will compare two fractions with different numerators and different denominators using <, >, and =, and justify the comparison.





Three *Types* of Assessment

Unobtrusive

 Informal, do not interrupt the normal flow

-observations, listening for key ideas, watching for key actions or processes

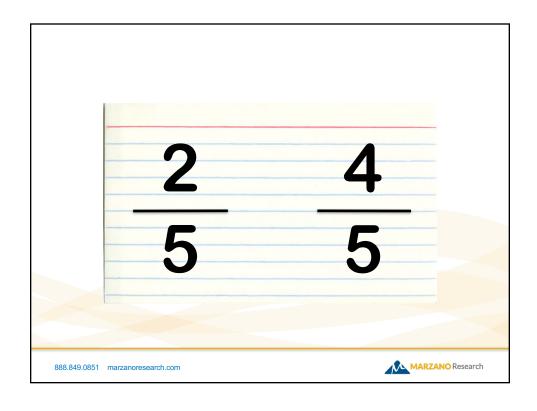


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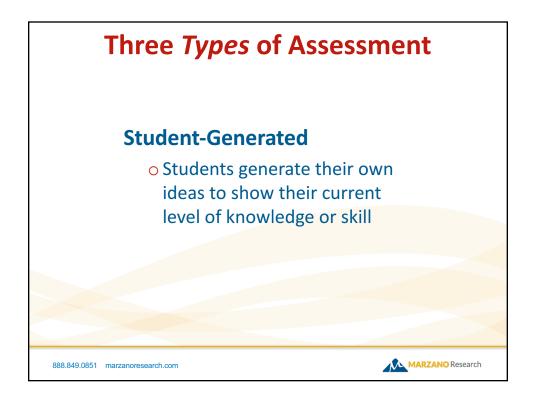


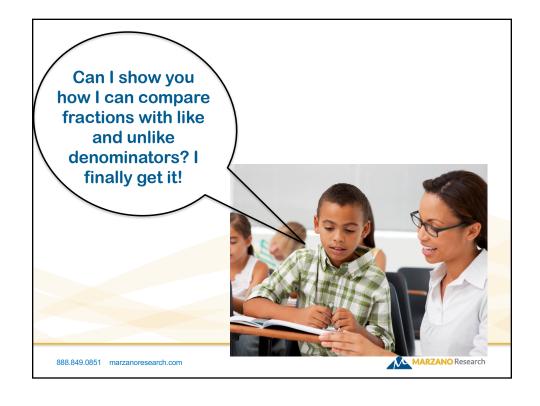
The student will compare two fractions with different numerators and different denominators using <, >, and =, and justify the comparison.

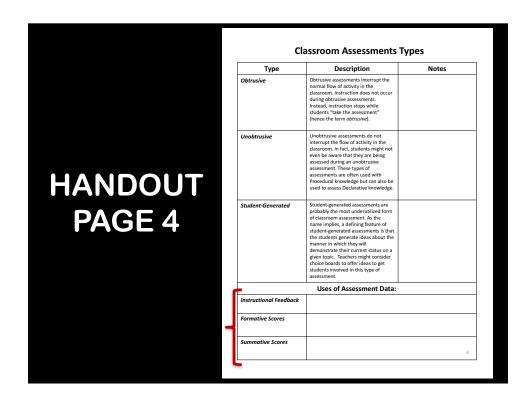












Determining a Score for the Standard Formative Priority Formative Formative Formative Summative Score Standard(s) Score #1 Score #2 Score #3 Score #4 **Comparing** 90% 76% 80% 88% 90% **Fractions** (4.NF.2)MARZANO Research 888.849.0851 marzanoresearch.com

Determining a Score for the Standard

Priority	Formative	Formative	Formative	Formative	Summative Score
Standard(s)	Score #1	Score #2	Score #3	Score #4	
Comparing Fractions (4.NF.2)	76%	80%	88%	90%	89%

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As we make decisions about student learning, we can *never* rely on a single assessment.



All assessments have measurement error.

Observed score = true score + error

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One cause of measurement error...



 Student not feeling well on the day of the assessment.



What are some sources of measurement error?

- Student not feeling well on the day of the assessment.
- Poor test questions
- Visual and verbal distractions
 - Fire drill, bee in the room, window open, SNOW!!!
- Too many assessments on the same day!!
- Biological accidents
- Biased test questions
- Inadequate opportunity to learn

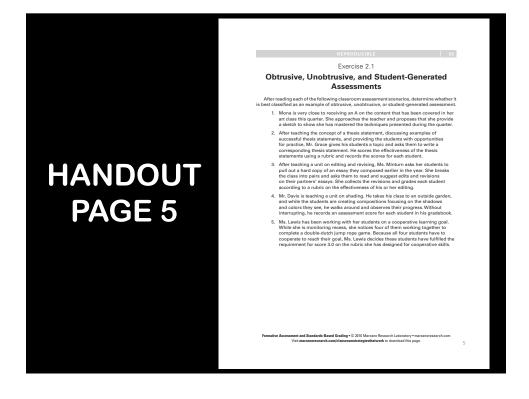
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Which of these can we control?

- Student not feeling well on the day of the assessment.
- Poor test questions
- Visual and verbal distractions
 - Fire drill, bee in the room, window open, SNOW!!!
- Too many assessments on the same day!!
- Biological accidents
- Biased test questions
- Inadequate opportunity to learn





Day #1 Learning Outcomes...

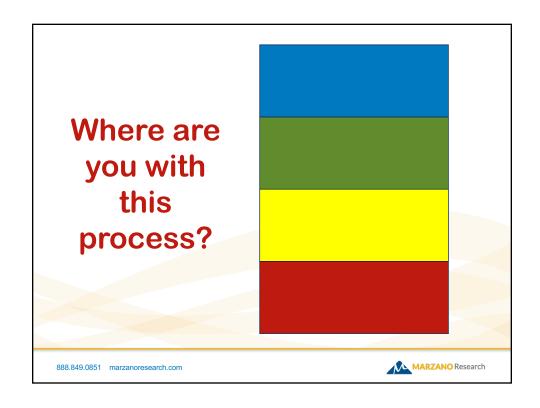
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HANDOUT PAGE 2









Facts About Standards

- ✓ Researchers at McRel identified some 200 standards and 3,093 benchmarks in national- and state-level documents for different subject areas.
- ✓ Classroom teachers then estimated that the amount of time it would take to adequately address the content articulated in these documents was 15,465 hours.



Adding to this...

- ✓ Approximately 5.6 hours per day are spent on classroom instruction for about 180 days to total 1008 hours of instructional time per year.
- ✓ The study found that in secondary schools, approximately one-third of the instructional time available is lost to both valid and invalid reasons.

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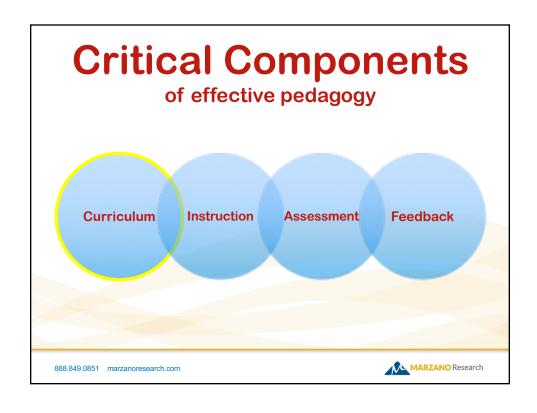
KEY TAKEAWAY

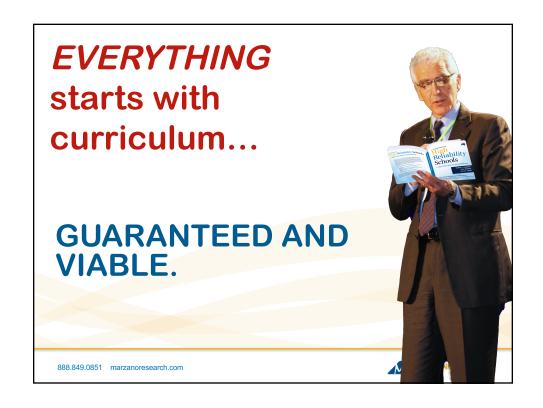
We have inadequate instructional time available to adequately teach the content of all the standards.





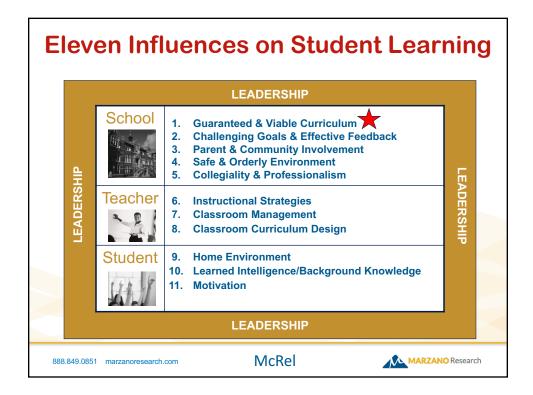


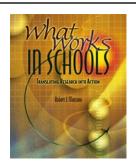




Essentially, a guaranteed and viable curriculum is one that can be taught in the time available and is being taught in every classroom.



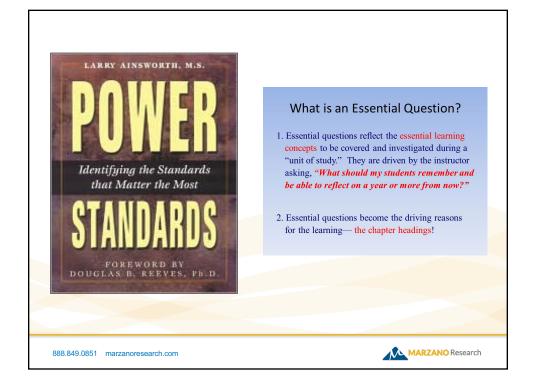


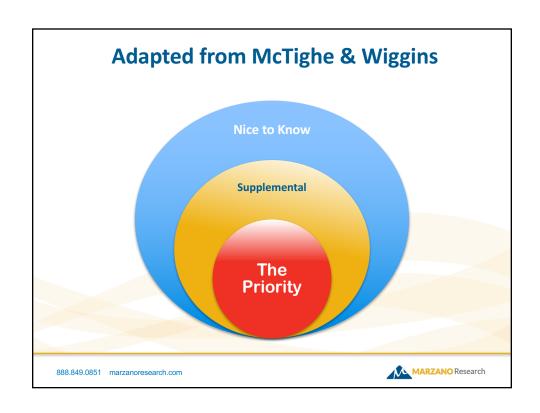


In his book, *What Works in Schools*, Dr. Robert Marzano says. . .

synthesis of research data reveals that a guaranteed and viable curriculum is the school-level factor that has the MOST impact on student achievement... yet it is probably the hardest to implement.









Priority standards are those that have been identified as most essential to a particular grade level or content area, and therefore, mastery by all students is the goal.

Supporting standards are those that have not been identified as most essential, but are still to be taught in a particular grade level or content area.

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The process of prioritizing standards...

- 1) supports identifying learning targets and success criteria.
- 2) identifies content that receives primary instructional focus.
- 3) impacts assessment development, including common assessment.
- 4) informs the feedback provided to the learner.



The student will cite textual evidence to support analysis of what a grade-appropriate text says explicitly, as well as inferences drawn from the text

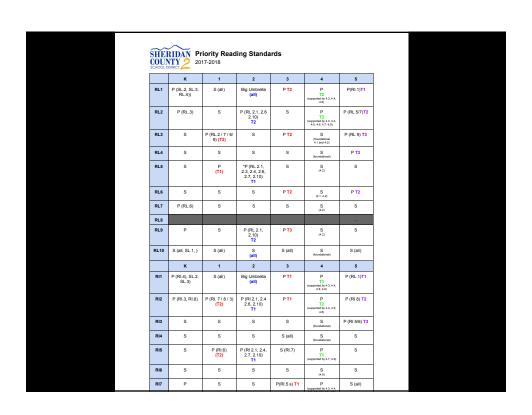
Endurance?
Leverage?
Readiness?
Teacher Judgment?
Assessment Connected?

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The student will cite textual evidence to support analysis of what a grade-appropriate text says explicitly, as well as inferences drawn from the text **Endurance** X Leverage X **Readiness** X **Teacher Judgment** X **Assessment Connected** X MARZANO Research 888.849.0851 marzanoresearch.com

	O VISTA E					
Standard	KIND	GRADE 1	GRADE 2	GRADE 3	GRADE 4	GRADE 5
RL 1	х	х	Х	Х	Х	Х
RL 2	Х	Х			Х	Х
RL 3	Х	Х				Х
RL 4				Х	Х	Х
RL 5			Х			
RL 6					Х	Х
RL 7	х					
RL 9			Х	Х	Х	
RL 10						
RI 1	х	х	х	х	х	х
RI 2	X	X	x	X	X	X
RI 3	^	X	^	X	X	^
RI 4		X		X	X	Х
RI 5		_ ^		X	X	^
RI 6			Х	~	~	
RI 7	Х					Х
RI 8						
RI 9			Х	х	х	
RI 10						
RF 1	X (a, b, c)	х				
RF 2	X (c, d, e, f)	Х				
RF 3	х	X (a, b, c)	X (a, b, c, d, e, f)	Х	Х	х
RF 4	Х	X (a)	X (a, b, c)	Х	X (a, c)	X (a)
W 1			Х	Х	X (a, b, c)	Х
W 2	Х	Х		Х	X (a, b, e)	X (a, b, e)
W 3		Х	Х			X (a)
W 4					Х	Х
W 5						
W 6						
W 7			Χ			
W 8				Х	Х	
W 9						
W 10						



	1 st Tri	mester	2 nd Tri	mester	3 rd Trimester		
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	
	Place Value, Time, Addition, Subtraction, Capacity	Multiplication and Division	Multiplication and Division	Area, Perimeter, and Quadrilaterals	Representing and Comparing Fractions	Problem Solving	
Priority Standards	3.NBT.2 3.MD.1	3.OA.1 3.OA.2	3.NBT.3 3.OA.3 3.OA.4 3.OA.7	3.MD.5 3.MD.6 3.MD.7 3.MD.8	3.G.2 3.NF.1 3.NF.2 3.NF.3	3.OA.8	
	3.NBT.1 3.MD.2	3.OA.3 3.OA.4	3.OA.1 3.OA.2	3.G.1	3.MD.4	3.NBT.1 3.NBT.2	
	3.1410.2	3.OA.5 3.OA.6	3.OA.5 3.OA.6			3.NBT.3	
		3.OA.7	3.OA.8			3.OA.1	
		3.OA.8	3.OA.9			3.OA.2	
			3.MD.3			3.OA.4	
						3.OA.5	
						3.OA.6	
Supporting						3.OA.8 3.OA.9	

				Mathe	ematics				
					Standards				
				1 Hority	Stanuarus				
K	1st	2nd	3rd	4th	5th	6th	7th	8th	Algebra
K.CC.1	1.OA.1	2.OA.1	3.OA.1	4.OA.1	5.OA.2	6.RP.3	7.RP.2	8.NS.2	N-Q.1
K.CC.2	1.OA.3	2.OA.2	3.OA.2	4.OA.2	5.OA.3	6.NS.2	7.RP.3	8.EE.1	N-Q.2
K.CC.4	1.OA.5	2.OA.4	3.OA.3	4.OA.3	5.NBT.1	6.NS.3	7.NS.1	8.EE.2	A-SSE.1
K.CC.5	1.OA.6	2.NBT.1	3.OA.7	4.NBT.1	5.NBT.2	6.NS.4	7.NS.2	8.EE.5	A-SSE.2
K.CC.6	1.OA.7	2.NBT.2	3.OA.8	4.NBT.2	5.NBT.4	6.NS.5	7.NS.3	8.EE.7	A-SEE.3
K.CC.7	1NBT.1	2.NBT.3	3.NBT.1	4.NBT.3	5.NBT.5	6.NS.6	7.EE.2	8.EE.8	A-APR.1
K.OA.1	1.NBT.2	2.NBT.5	3.NBT.2	4.NBT.5	5.NBT.6	6.NS.7	7.EE.3	8.F.1	A-CED.2
K.OA.2	1.MD.2	2.NBT.7	3.NF.1	4.NBT.6	5.NBT.7	6.NS.8	7.EE.4	8.F.3	A-CED.3
K.OA.5	1.MD.3	2.NBT.8	3.NF.3	4.NF.1	5.NF.1	6.EE.1	7.G.1	8.F.4	A-CED.4
K.NBT.1	1.MD.4	2.MD.1	3.MD.1	4.NF.2	5.NF.2	6.EE.2	7.G.6	8.G.1	A-REI.1
K.G.1	1.G.1	2.MD.5	3.MD.3	4.NF.3	5.NF.3	6.EE.4	7.SP.2	8.G.2	A-REI.3
K.G.2	1.G.3	2.MD.7	3.MD.4	4.NF.6	5.NF.4	6.EE.5	7.SP.4	8.G.5	A-REI.5
		2.MD.8	3.MD.5	4.NF.7	5.NF.6	6.EE.6	7.SP.5	8.G.7	A-REI.6
		2.G.1	3.G.1	4.MD.1	5.MD.1	6.EE.7	7.SP.6	8.G.8	A-REI.10
		2.G.3	3.G.2	4.MD.2	5.MD.2	6.EE.9		8.SP.1	A-REI.12
				4.MD.3	5.MD.3	6.G.1		8.SP.2	F-IF.1
				4.MD.5	5.MD.4	6.G.2		8.SP.3	F-IF.2
				4.MD.6	5.MD.5	6.G.3			F-IF.5
				4.MD.7	5.G.1	6.SP.3			F-IF.6
				4.G.1	5.G.2	6.SP.4			S-ID.1
				4.G.3		6.SP.5			S-ID.7

Unit 1: Critical Period and Constitutional Convention Duration: 6 weeks Stage 1 Desired Results STABLISHED GOALS Transfer Students will be able to independently use their learning to ...
[1. Identify and explain cause and effect relationships. [8.1.3]
[2. Understand that events and issues are viewed from multiple perspectives [8.4.4] United States Constitution and treaties and how they have shaped the United States and Wyoming Government. 1.1.5: Describe the structures of the United States ESSENTIAL QUESTIONS NDERSTANDINGS EQ1: Why do we have to learn about history?
[8.1.3, 8.4.4]
EQ2: Why does the Constitution include what it does? [8.1.3] and Wyoming Constitutions (e.g., Articles, dents will understand that. Bill of Rights, amendments). 11: Past events/decisions impact current and future decisions and actions. [8.1.3, 8.4.4]
J2: The US Constitution was influenced by among individuals, groups, and/or institutions (e.g., family, neighborhood, EQ3: Is the Constitution still a meaningful colonial experience and compromise was political, economic, religious, social, necessary to create it. [8.1.3, 8.4.4] document? [8.4.4] cultural, and workplace). J3: The Constitution has statements to protect individual rights. [8.1.3]
J4: There are many ways to interpret the various Supporting Standards: Addressed in the unit but not comprehensively assessed in the unit. parts of the Constitution. [,8.4.4] 8.4.1: Describe how historical events impact the future (cause and effect) and how change Students will be skilled at. udents will know.. K1: how power was divided in the Articles of S1: describing how the Constitution is structured. spreads to other places. 3.6.1: Use and evaluate multiple sources of S1: describing now the Constitution is structured.
[8.1.5]
S2: identifying interactions among individuals and groups.
[8.4.4]
S3: identifying and explaining cause and effect relationships.
[8.1.3, 8.4.1] Confederation (AOC) and is divided in the US Constitution. [8.1.3, 8.1.5] :: weaknesses of the AOC and how these information in diverse formats and media in order to address a question or solve a weaknesses led to conflicts. [8.1.3] K3: how the question of slavery was dealt with in the Constitution. [8.1.3, 8.4.4]
K4: significant groups and their rationale for S4: evaluating a graph to answer related questions
[8.6.1] supporting or not supporting ratification of the Constitution. [8.4.4] K5: significant individuals/groups and places related to American government and the writing of the Constitution. [8.4.4] (6.1) the basis truthermore writing of the Constitution. [8.4.4]
K6: the basic structures/parts of the Constitution
and be able to describe them. [8.1.5]
K7: important content related vocabulary for the
unit of study. [8.1.3, 8.1.5, 8.4.4, 8.4.1, 8.6.1]



How does prioritizing standards (topics) benefit teachers? students?

To what degree do you have clarity about which standards are more important than others?

What impact does (should) this process have on classroom practice?

1) PRIORITY STANDARD

4.NF.2

Compare two fractions with different numerators and different denominators using <, >, and =, and justify the comparison

HANDOUT PAGE 16



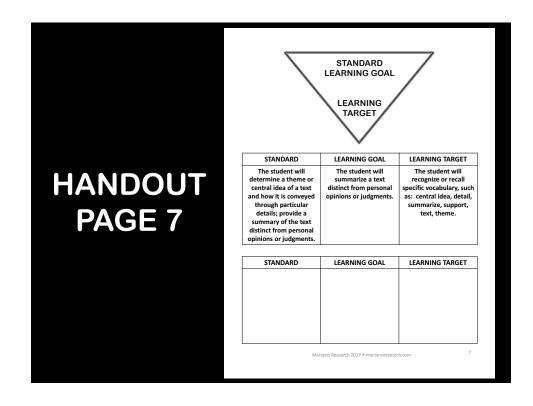
Day #1 Learning Outcomes...

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 - ✓ Provide frequent and meaningful feedback.
 - ✓ Provide opportunities for students to set goals, reflect on learning, and track their own progress.

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HANDOUT PAGE 2







How well will students understand this standard?

The learner will build background knowledge and activate prior knowledge to identify text-to-self, text-to-text, and text-to-world connections before, during, and after reading.

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How well will students understand this standard?

The learner will read, write and demonstrate multiple equivalent representations for numbers up to 100,000 using objects, visual representations, including standard form, word form, expanded form, and expanded notation.

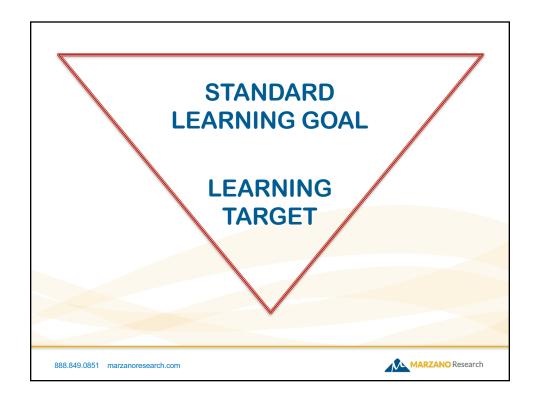
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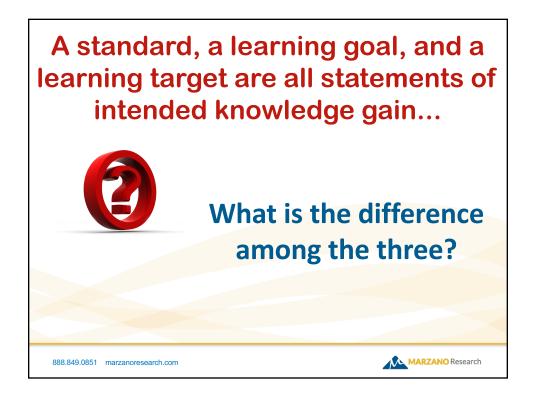


How well will students understand this standard?

The learner will describe how various individuals and groups influence the way an issue affecting the state is viewed and resolved (e.g., lobbying, petitions, media, social media).







The student will determine a theme or central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.





Unidimensionality...



When a statement of intended knowledge gain refers to one dimension (idea).

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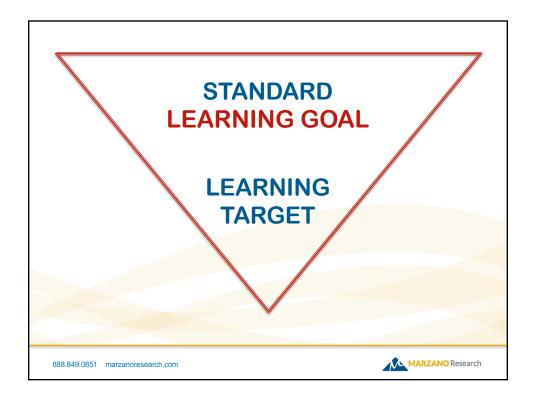


The student will determine a theme or central idea of a text.

The student will describe how a theme or central idea is conveyed through particular details in the text.

The student will provide a summary of the text distinct from personal opinions or judgments.





The student will determine a theme or central idea of a text.

Recognize or recall specific terminology, such as: central idea, detail, summarize, support, text, theme.

The student will describe how a theme or central idea is conveyed through particular details in the text.

Identify details that support the theme or central idea of a text.

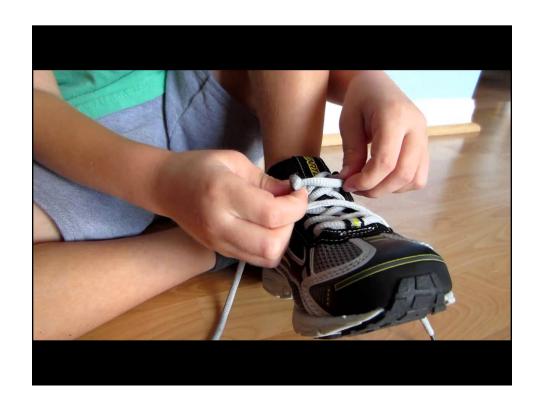
The student will provide a summary of the text distinct from personal opinions or judgments.

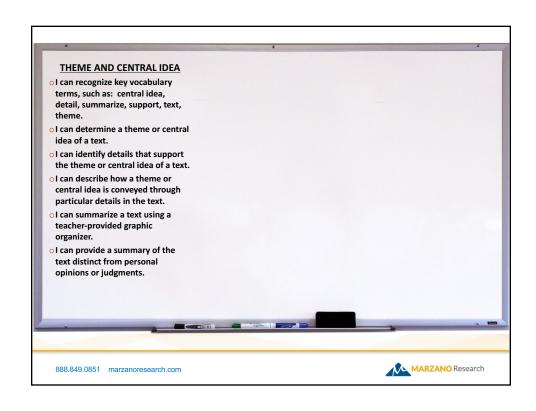
Summarize a text using a teacher-provided graphic organizer.

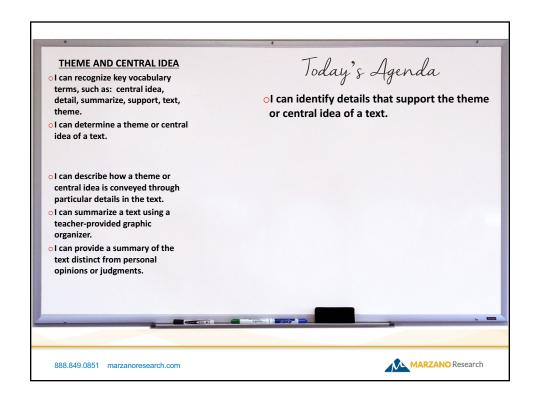






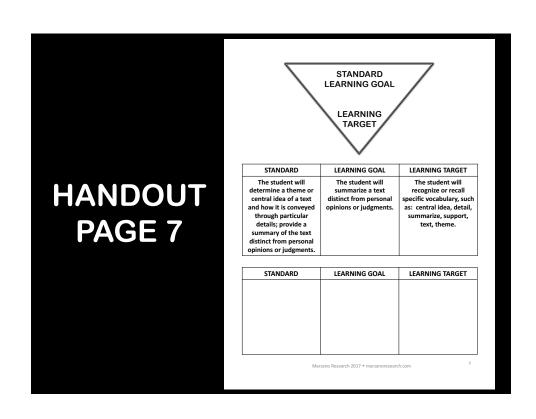












RL.2.3

The student will describe how characters in a story respond to major events and challenges.

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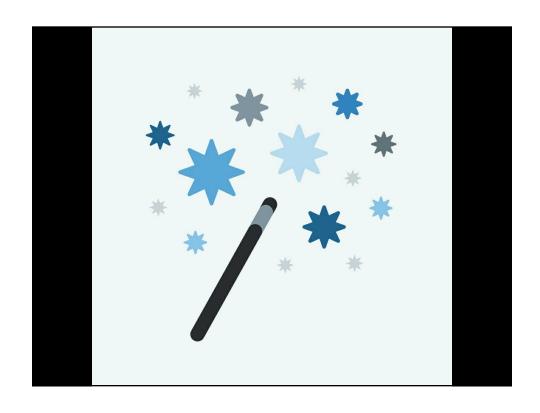


RL.2.3

The student will describe how characters in a story respond to major events and challenges.

- Recognize or recall specific vocabulary, such as: challenges, character, events
- Describe the characters in a story.
- Describe the events and/or challenges in a story.





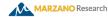
Scale Example THEME/CENTRAL IDEA The student will (for example): Analyze multiple texts with different Score 4.0 themes. Explain how he/she has experienced the theme of a text. **HANDOUT** The student will: Describe a theme or central idea of a Score 3.0 text. PAGE 8 Summarize a grade-appropriate text. The student will: Recognize or recall specific terminology, such as: central idea, detail, summarize, support, text, Score 2.0 Determine a theme or central idea of a text from teacher-provided options Identify details that support the theme or central idea of a text. Summarize a text using a teacherprovided graphic organizer. Marzano Research 2017 • marzan 888.849.0851 marzanoresearch.com

Day #1 Learning Outcomes...

- Gain an awareness of the research regarding classroom assessment.
- Understand the differences among obtrusive, unobtrusive, and student-generated assessments and how to use each in the classroom.
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HANDOUT PAGE 2

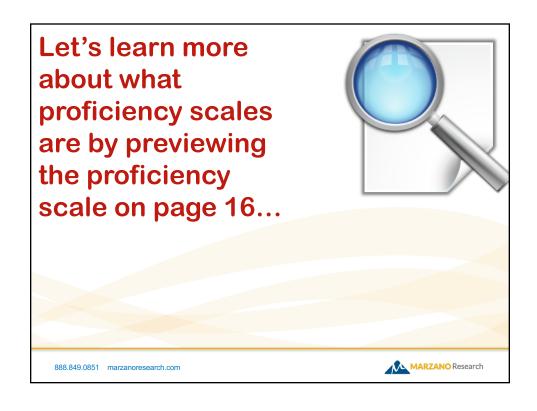


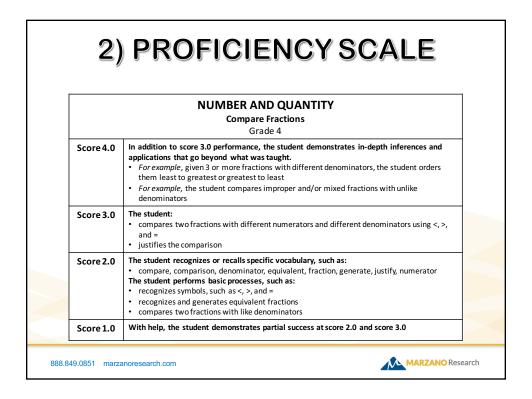


The foundation for a high-quality classroom assessment is...

a high-quality proficiency scale.









What is a proficiency scale?

A tool that displays a collection of related statements of learning and scores for determining the current level of performance.

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What is a proficiency scale?

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The student will be able to:

Order three or more fractions with *unlike* denominators from least to greatest. (complex content)

Compare two fractions with *unlike* denominators. (at the level of the standard)

Compare two fractions with *like* denominators. (simple content)





What is a proficiency scale?

A tool that displays a collection of related statements of learning and scores for determining the current level of performance.

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The student will:

4 compare improper and/or mixed fractions with unlike denominators. (complex content)

3 compare two fractions with different numerators and different denominators. (at the level of the learning goal)

2 compare two fractions with like denominators. (simple content)



Proficiency Scale HANDOUT PAGE 9 In addition to exhibiting level 3 performance, in-depth inferences and applications that go BEYOND what was taught in class 3 No major errors or omissions regarding any of the information and/or processes (SIMPLE OR COMPLEX) that were explicitly taught 2 No major errors or omissions regarding the SIMPLER details and processes BUT major errors or omissions regarding the more complex ideas and processes With HELP, a partial knowledge of some of the simpler and 1 complex details and processes 0 Even with help, no understanding or skill demonstrated MARZANO Research 888.849.0851 marzanoresearch.com

		Proficiency Scale
	4	In addition to exhibiting level 3 performance, in-depth inferences and applications that go BEYOND what was taught in class
	Learning Goal	No major errors or omissions regarding any of the information and/or processes (SIMPLE OR COMPLEX) that were explicitly taught
,	2	No major errors or omissions regarding the SIMPLER details and processes BUT major errors or omissions regarding the more complex ideas and processes
	1	With HELP, a partial knowledge of some of the simpler and complex details and processes
	0	Even with help, no understanding or skill demonstrated

NUMBER AND QUANTITY

Compare Fractions

Grade 4

Score 4.0

In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught.

- For example, given 3 or more fractions with different denominators, the student orders them least to greatest or greatest to least
- For example, the student compares improper and/or mixed fractions with unlike denominators

Learning Goal

The student:

- compares two fractions with different numerators and different denominators using <, >, and =
- justifies the comparison

The student recognizes or recalls specific vocabulary, such as:

• compare, comparison, denominator, equivalent, fraction, generate, justify, numerator The student performs basic processes, such as:

- recognizes symbols, such as <, >, and =
- · recognizes and generates equivalent fractions
- · compares two fractions with like denominators

Score 1.0

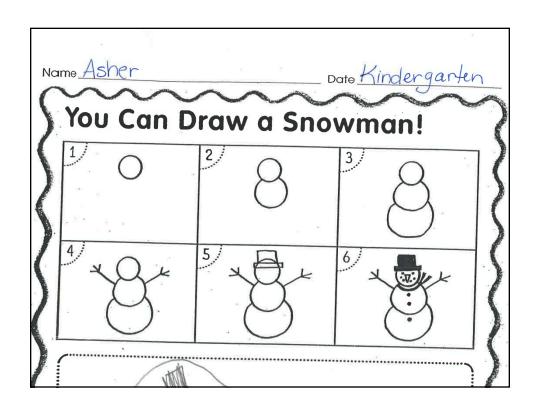
With help, the student demonstrates partial success at score 2.0 and score 3.0

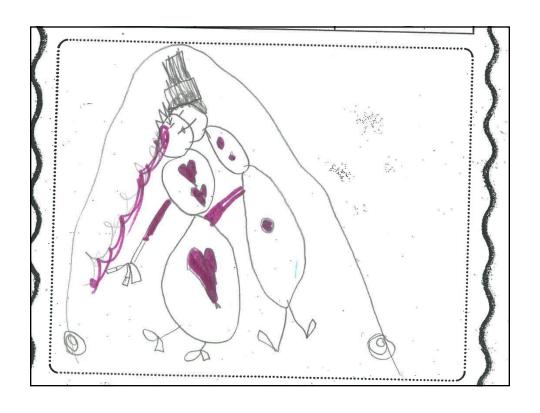
Proficiency Scale In addition to exhibiting level 3 performance, in-depth inferences and applications that go BEYOND what was taught in class 3 No major errors or omissions regarding any of the information and/or processes (SIMPLE OR COMPLEX) that were explicitly taught No major errors or omissions egarding the Vocabular missions reg Prerequisites complex ideas and processes With HELP, a partial knowledge of some of the simpler and 1 complex details and processes Even with help, no understanding or skill demonstrated 0

	NUMBER AND QUANTITY	
	Compare Fractions Grade 4	
Score 4.0	In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught. • For example, given 3 or more fractions with different denominators, the student orders them least to greatest or greatest to least • For example, the student compares improper and/or mixed fractions with unlike denominators	
Score 3.0	The student: compares two fractions with different numerators and different denominators using <, >, and = iustifies the comparison	
Score 2.0	The student recognizes or recalls specific vocabulary, such as: compare, comparison, denominator, equivalent, fraction, generate, justify, numerator	
,	 recognizes symbols, such as <, >, and = recognizes and generates equivalent fractions compares two fractions with like denominators 	
Score 1.0	0 With help, the student demonstrates partial success at score 2.0 and score 3.0	

NUMBER AND QUANTITY Compare Fractions Grade 4				
Score 4.0	In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught. • For example, given 3 or more fractions with different denominators, the student orders them least to greatest or greatest to least • For example, the student compares improper and/or mixed fractions with unlike denominators			
Score 3.0	The student:			
Score 2.0	The student recognizes or recalls specific vocabulary, such as: The student performs basic processes, such as: recognizes symbols, such as <, >, and = recognizes and generates equivalent fractions compares two fractions with like denominators			
Score 1.0	With help, the student demonstrates partial success at score 2.0 and score 3.0			

4	In addition to exhibiting level 3 performance in Carron nces and ap APPLICATION NEW NEW NEW NEW NEW NEW NEW NEW NEW NE				
3	No major errors or omissions regarding any of the information and/or processes (SIMPLE OR COMPLEX) that were explicitly taught				
2	No major errors or omissions regarding the SIMPLER details and processes BUT major errors or omissions regarding the more complex ideas and processes				
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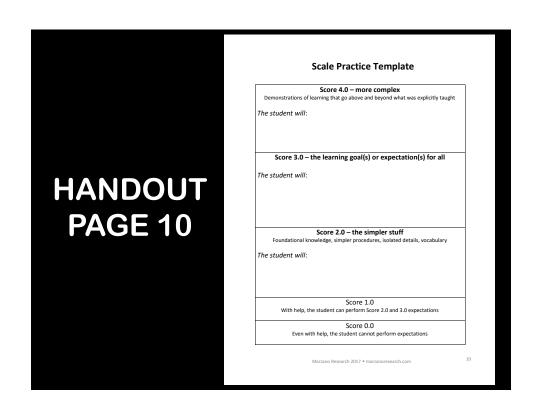


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4	In addition to exhibiting level 3 performance, in-depth inferences and applications that go BEYOND what was taught in class		
3	No major errors or omissions regarding any of the information and/or processes (SIMPLE OR COMPLEX) that were explicitly taught		
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Let's practice

The student will solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and \$ symbols appropriately.

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Topic: Word Problems with Money

Score 4.0	 The student will: Write, solve, and share a multi-step word problem involving dollar bills, quarters, dimes, nickels, and pennies.
Score 3.0	The student will:Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies.
Score 2.0	 The student will: Recognize or recall specific terminology, such as: all together, coin, decimal, remaining, value Use \$ and ¢ symbols appropriately. Identify coin values (quarter, dime, nickel, penny). Add or subtract different coins to determine a total amount of money or money remaining.

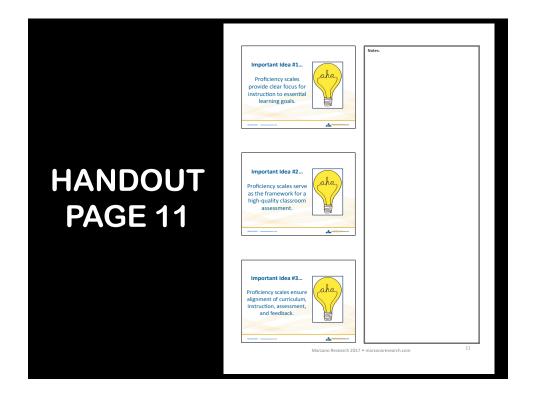
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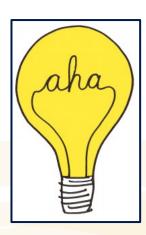
HANDOUT PAGE 2





An important idea...

Proficiency scales provide clear focus for instruction to learning goals.



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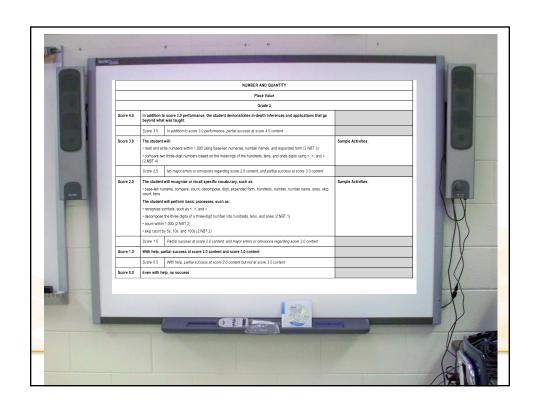
HANDOUT PAGE 11

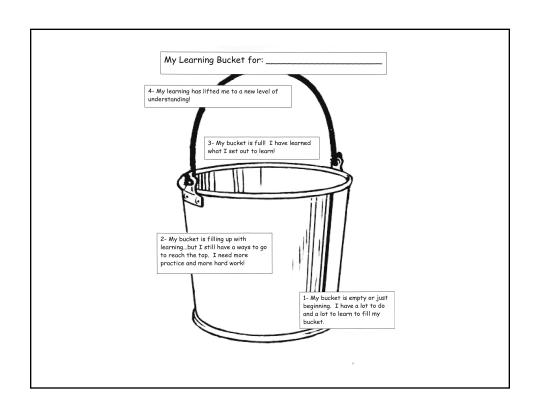


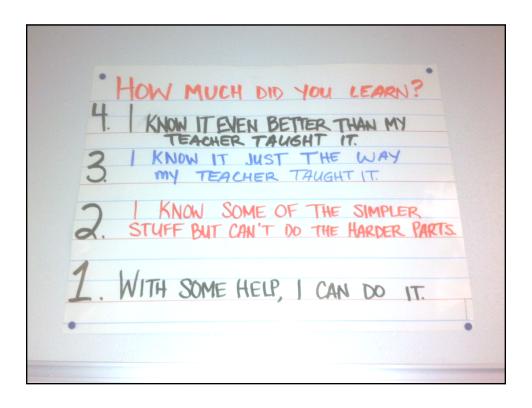
It is critical that we use scales frequently with our learners to ensure that they understand what they need to know and be able to do.

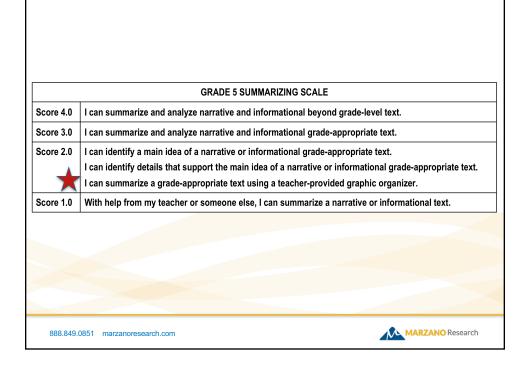
How do we teach our students about proficiency scales?



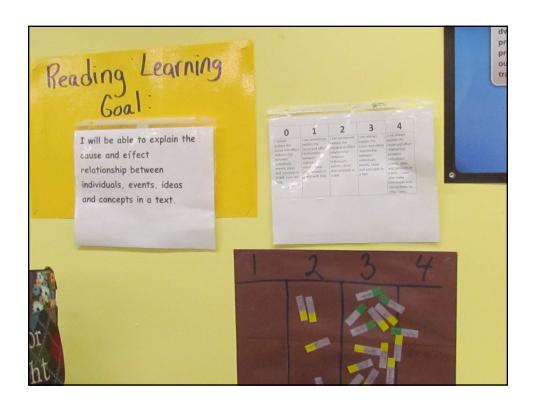


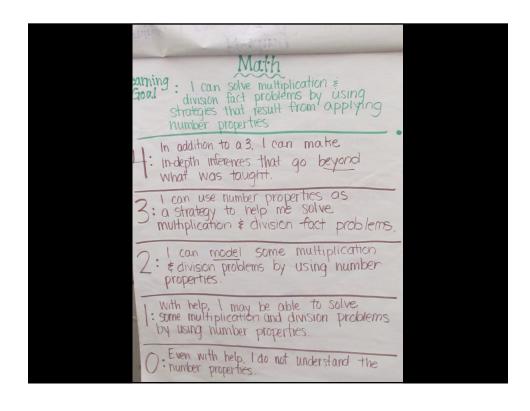


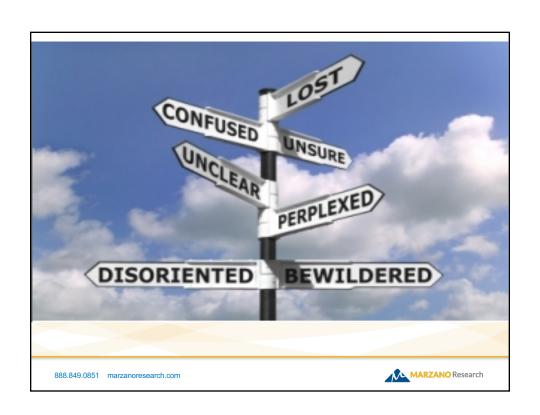






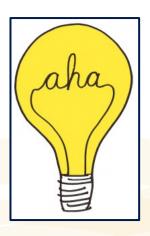






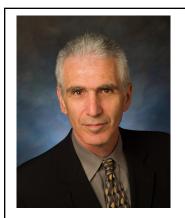


Proficiency scales serve as the framework for a high-quality classroom assessment.



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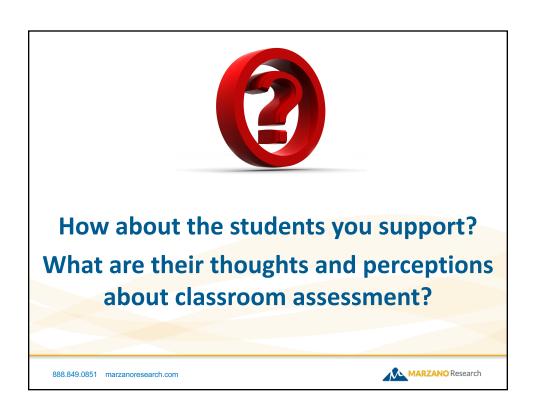




The foundation for a high-quality classroom assessment is...

a high-quality proficiency scale.







2) PROFICIENCY SCALE

NUMBER AND QUANTITY Compare Fractions Grade 4 In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught. For example, given 3 or more fractions with different denominators, the student orders them least to greatest or greatest to least For example, the student compares improper and/or mixed fractions with unlike denominators Score 3.0 The student: • compares two fractions with different numerators and different denominators using <, >, • justifies the comparison Score 2.0 The student recognizes or recalls specific vocabulary, such as: · compare, comparison, denominator, equivalent, fraction, generate, justify, numerator The student performs basic processes, such as: • recognizes symbols, such as <, >, and = · recognizes and generates equivalent fractions · compares two fractions with like denominators With help, the student demonstrates partial success at score 2.0 and score 3.0 Score 1.0

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Three types of assessment items to measure the knowledge and skills defined...

- Level 2 items: Simpler details and processes that have been explicitly taught
- Level 3 items: Complex ideas and processes that have been explicitly taught
- Level 4 items: Inferences and applications that go beyond what was taught

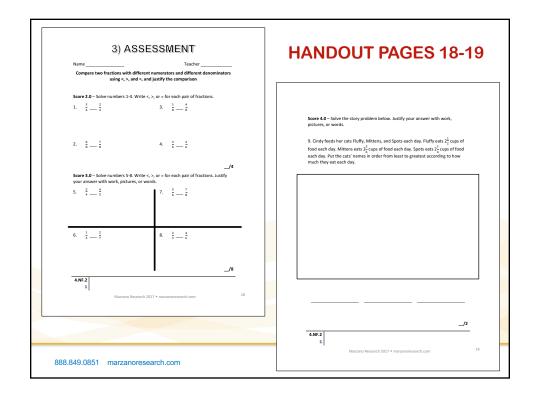


Classroom assessment is...

Anything a teacher does to gather information about a student's knowledge or skill regarding a specific topic.

Marzano, R. (2010) Formative Assessment and Standards-Based Grading,
Bloomington, IN, Marzano Research Laboratory





3) ASSESSMENT

Name _____

Teacher _____

Compare two fractions with different numerators and different denominators using <, >, and =, and justify the comparison

Score 2.0 – Solve numbers 1-4. Write <, >, or = for each pair of fractions.

1. $\frac{3}{4}$ — $\frac{2}{4}$

3. $\frac{1}{8}$ — $\frac{4}{8}$

2. $\frac{6}{8} - \frac{7}{8}$

4. $\frac{3}{6}$ — $\frac{2}{6}$

__/4

Score 3.0 – Solve numbers 5-8. Write <, >, or = for each pair of fractions. Justify your answer with work, pictures, or words.

Score 3.0 – Solve numbers 5-8. Write <, >, or = for each pair of fractions. Justify your answer with work, pictures, or words.

5. $\frac{3}{4}$ — $\frac{4}{5}$

7. $\frac{5}{6}$ — $\frac{7}{8}$

6. $\frac{1}{3}$ — $\frac{2}{7}$

3. $\frac{2}{3}$ — $\frac{4}{6}$

/8

4.NF.2

39

Score 4.0 – Solve the story problem below. Justify your answer with work, pictures, or words.

9. Cindy feeds her cats Fluffy, Mittens, and Spots each day. Fluffy eats $2\frac{1}{2}$ cups of food each day. Mittens eats $2\frac{5}{6}$ cups of food each day. Spots eats $2\frac{1}{4}$ cups of food each day. Put the cats' names in order from least to greatest according to how much they eat each day.

ONE INDIVIDUAL STUDENT'S RESULTS

- Score 2.0
 - Student answered all the items/tasks correctly
- Score 3.0
 - Student answered a portion of the items/tasks correctly
- Score 4.0
 - Student did not answer any of the items/tasks correctly



COMA	= 64%)
(9/14	- 04%)

3) ASSESSMENT

Name _____ Teacher _____

Compare two fractions with different numerators and different denominators using <, >, and =, and justify the comparison

Score 2.0 – Solve numbers 1-4. Write <, >, or = for each pair of fractions.

1. $\frac{3}{4}$ $\frac{2}{4}$

3. $\frac{1}{8}$ — $\frac{4}{8}$

2. $\frac{6}{8}$ — $\frac{7}{8}$

4. $\frac{3}{6} - \frac{2}{6}$

__/4

Score 3.0 – Solve numbers 5-8. Write <, >, or = for each pair of fractions. Justify your answer with work, pictures, or words.

2) PROFICIENCY SCALE

NUMBER AND QUANTITY Compare Fractions Grade 4 In addition to score 3.0 performance, the student demonstrates in-depth inferences and Score 4.0 applications that go beyond what was taught. For example, given 3 or more fractions with different denominators, the student orders them least to greatest or greatest to least For example, the student compares improper and/or mixed fractions with unlike The student: Score 3.0 compares two fractions with different numerators and different denominators using <, >, and = · justifies the comparison The student recognizes or recalls specific vocabulary, such as: Score 2.0 • compare, comparison, denominator, equivalent, fraction, generate, justify, numerator The student performs basic processes, such as: recognizes symbols, such as <, >, and = • recognizes and generates equivalent fractions • compares two fractions with like denominators With help, the student demonstrates partial success at score 2.0 and score 3.0



2.5

3) ASSESSMENT

Name _____

Teacher _____

Compare two fractions with different numerators and different denominators using <, >, and =, and justify the comparison

Score 2.0 – Solve numbers 1-4. Write <, >, or = for each pair of fractions.

1. $\frac{3}{4}$ — $\frac{2}{4}$

3. $\frac{1}{8}$ — $\frac{4}{8}$

2. $\frac{6}{8}$ — $\frac{7}{8}$

4. $\frac{3}{6} - \frac{2}{6}$

__/4

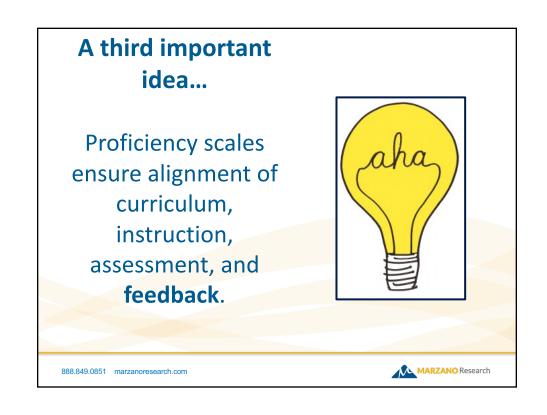
Score 3.0 – Solve numbers 5-8. Write <, >, or = for each pair of fractions. Justify your answer with work, pictures, or words.

Determining a Score Level for the Standard

Priority	Formative	Formative	Formative	Formative	Summative Score
Standard(s)	Score #1	Score #2	Score #3	Score #4	
Comparing Fractions (4.NF.2)	1.5	2.0	2.5	2.5	2.5







Have you ever received feedback like this?

Court - 10

Ferdinand Magellan

Ferdinand Magellan was born in Sabrosa, Portugal in the spring of 480. He was raised in the northern province of Minho. He was enrolled in the boyal School for Pages when he was 12 years old. He learned about mapmaking, astronomy, and celestial navigation. Magellan heard about how Bartholomeu Dias had rounded the bottom of Africa, and how Christopher Columbus reached some of the islands of the New World. He heard about Vasco da Gama sailed around Africa and crossed the Indian Ocean to India and the Spice Islands. These explorations caused Magellan to

After a long process, Magellan finally got approval from King Charles to set out on his voyage. Five tall, square-rigged ships were built for the voyage. They were the San Antonio, the Victoria, the Concepcion, the Santiago, and the Trinidad.

dream about the day when he would search for new places.

At the last minute, Antonio Pigafetta joined the crew. He turned out to be a

What are the attributes of effective feedback?

- Timely
- Specific and clear
- Corrective
- Fosters a growth mindset



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ONE INDIVIDUAL STUDENT'S RESULTS

- Score 2.0
 - Student answered all the items/tasks correctly
- Score 3.0
 - Student answered a portion of the items/tasks correctly
- Score 4.0
 - Student did not answer any of the items/tasks correctly



3) ASSESSMENT

Name _____

Teacher _____

Compare two fractions with different numerators and different denominators using <, >, and =, and justify the comparison

Score 2.0 – Solve numbers 1-4. Write <, >, or = for each pair of fractions.

1. $\frac{3}{4}$ — $\frac{2}{4}$

3. $\frac{1}{8}$ — $\frac{4}{8}$

2. $\frac{6}{8} - \frac{7}{8}$

4. $\frac{3}{6} - \frac{2}{6}$

4/4

Score 3.0 – Solve numbers 5-8. Write <, >, or = for each pair of fractions. Justify your answer with work, pictures, or words.

Score 3.0 – Solve numbers 5-8. Write <, >, or = for each pair of fractions. Justify your answer with work, pictures, or words.

5. $\frac{3}{4}$ — $\frac{4}{5}$

7. $\frac{5}{6}$ — $\frac{7}{8}$

6. $\frac{1}{3}$ — $\frac{2}{7}$

3. $\frac{2}{3}$ — $\frac{4}{6}$

<u>5</u>/8

4.NF.2

39

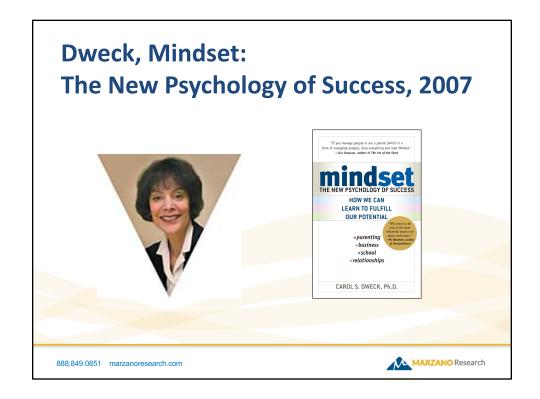
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4.NF.2 1		40

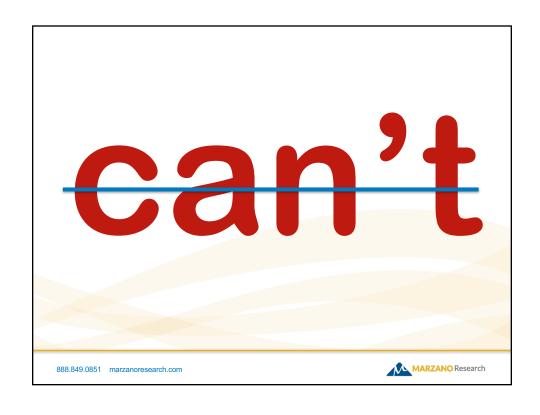
9/14 = 64% 3) A	SSESSMENT
Name	Teacher
	h different numerators and different denominators and =, and justify the comparison
Score 2.0 – Solve numbers 1-	4. Write <, >, or = for each pair of fractions.
1. $\frac{3}{4} - \frac{2}{4}$	3. $\frac{1}{8}$ — $\frac{4}{8}$
2. $\frac{6}{8} - \frac{7}{8}$	4. $\frac{3}{6} - \frac{2}{6}$
Score 3.0 – Solve numbers 5- your answer with work, pictu	8. Write <, >, or = for each pair of fractions. Justify ares, or words.

2) PROFICIENCY SCALE

NUMBER AND QUANTITY Compare Fractions Grade 4 In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught. For example, given 3 or more fractions with different denominators, the student orders them least to greatest or greatest to least For example, the student compares improper and/or mixed fractions with unlike denominators Score 3.0 The student: - compares two fractions with different numerators and different denominators using <, >, • justifies the comparison The student recognizes or recalls specific vocabulary, such as: Score 2.0 · compare, comparison, denominator, equivalent, fraction, generate, justify, numerator The student performs basic processes, such as: • recognizes symbols, such as <, >, and = • recognizes and generates equivalent fractions · compares two fractions with like denominators With help, the student demonstrates partial success at score 2.0 and score 3.0 Score 1.0

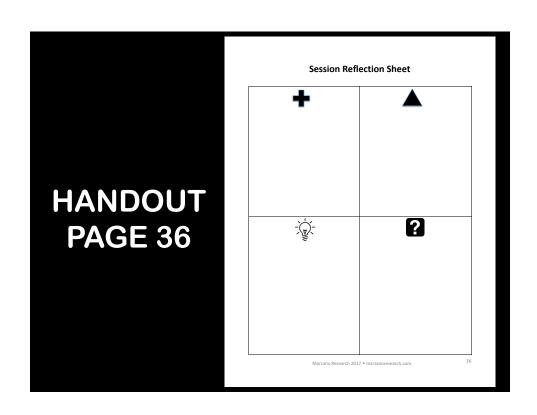














thanks for the great day!

See you tomorrow morning at 8:00!

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